FIELD OF THE INVENTION

This application is a 371 filing of PCT/IB2003/004008 filed July 25, 2003 and published March 25, 2004 under publication WO 2004/024007 and claims priority benefits of US Patent Applications No 60/411,236 and No 60/411,237 both filed September 16, 2002.

In the claims :

1. An acetabular reamer for surgical use, the reamer comprising

   (a) a substantially hemispherical, hollow dome defining an equatorial plane and an apex, and

   (b) a reamer spindle interface structure fixedly attached to the inside of the dome so as to substantially inset the interface structure within the dome in order to help minimize the size of an assembly of the reamer and a reamer spindle when performing joint surgery.

2. The acetabular reamer of claim 1, wherein the interface structure is attached via at least one internal junction which is substantially entirely recessed within the dome above the equatorial plane.

3. The acetabular reamer of claim 1, wherein the dome has at least one section removed so as to reduce a static insertion profile of the reamer, as compared to a dynamic profile, in order to facilitate surgery which is less invasive.

4. The reamer of claim 1, wherein a plurality of sections of the dome are removed so as to reduce a static insertion profile of the reamer in order to permit surgery which is still less invasive.

5. The reamer of claim 4, wherein the removed sections are equally spaced about the equator of the dome.

6. The reamer of claim 1, wherein the interface structure is fixedly attached to the inside of the dome via a junction located approximately at the apex of the dome.

7. The reamer of claim 1, wherein the interface structure is fixedly attached to the inside of the dome in regions substantially along the latitudinal plane of the interface.

8. The reamer of claim 2, wherein the section removed from the dome renders the dome asymmetrical.

9. The reamer of claim 1, wherein the interface structure is a portion of at least one cross bar.

10. The reamer of claim 1, wherein the interface structure comprises at least two, equally spaced apart cross bars.

11. The reamer of claim 1 wherein the interface structure is fixedly attached to the inside of the dome by a single cross bar having a central centering boss.

12. The reamer of claim 1 wherein the interface structure is fixed to the inside of the dome by a single cross bar having a central centering hole.

13. (Amended) A surgical reamer assembly comprised of

(a) a hollow reamer having ~~an~~ substantially inset interface structure, and

(b) an angled reamer spindle having a coupling, wherein the reamer and the spindle are attached together via the inset interface structure and the coupling, the assembly providing for minimum invasiveness of orthopedic surgery.

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Substitute specification is enclosed herewith.

Respectfully submitted,

John MOETTELI
Registration No 35,289
c/o BUGNION S.A.
10, route de Florissant
P.O. Box 375
1211 GENEVE 12
SWITZERLAND

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